

### ABSTRACT

A class sorting section obtains a class code  $CL$  indicating a class to which pixel data  $y$  of a target position in an image signal  $V_b$  belongs using motion compensation vector information  $m_i$  stored in a buffer memory in pair with pixel data of an image signal  $V_a$  corresponding to the pixel data  $y$ . An estimated prediction calculation circuit obtains the pixel data  $y$  based on an estimation equation, using pixel data  $x_i$  of a prediction tap and coefficient data  $W_i$  read from a coefficient memory. The coefficient data  $W_i$  has been obtained beforehand by a learning executed by use of a student signal which corresponds to the image signal  $V_a$  and contains the same encoded noise as of the image signal  $V_a$ , and a teacher signal which corresponds to the image signal  $V_b$  and contains no encoded signal.